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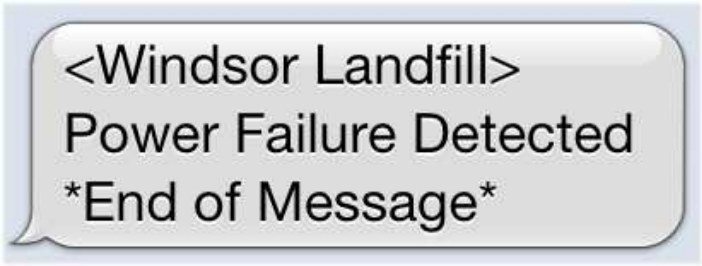
M60 SMS Reference Manual V5

An M60 fitted with our SMS Module fitted works exactly the same as a standard M60, but has the added facility to send SMS TEXT Messages.

Each channel/input has its own customisable SMS message; the messages are programmed by us on to the M60's SIM card. If you need your messages changed at any point you just need to fill in the update form and we will send you a replacement SIM card.
The SMS Text messages are separate from the speech messages so these will still need to be set up as per a standard machine.



How to setup your alarm contacts.

Setup
In order for an alarm call recipient to receive an SMS message instead of the default speech, the Call Type needs be changed in the menu to SMS Text Message.

The Call Type will need to be setup for each dial out number in every roster; this gives you the most flexibility as it allows you to setup dialout 1 as a speech message, dialout 2 as a SMS, dialout 3 as pager etc.

If we have pre setup your machine with your requested telephone numbers and Call Types then this setup would already have been done for you and you can ignore this section of the manual.
Otherwise you will next to setup your phone numbers and Call Types as per the instructions in the Keypad Section of the manual.

SMS Module Status Indicators.

When the M60 is first turned on with a valid SIM card fitted, the red LED nearest to the antenna connection will flash once per second for about approximately 10-15 seconds, whilst the terminal searches for the network.
Once the M60 has found and registered its self to a mobile\cell network correctly the red LED will start to flash once every 3 seconds, this indicates that everything is now running correctly and that the M60 is registered to the network.

If the LED on the module continues to flash once every second for a prolonged period of time e.g. around 5 minutes then this suggests there may be an issue with the SIM card, its installation, the network signal or the antenna connection.
Items to check if the LED continues to flash;

- Make sure the SIM is correctly fitted in the socket, the cut off should be located on the top left of the SIM socket.
- Make sure the SIM is activated and does not have a PIN code turned on.
- Move the GSM aerial and or the M60 to another location.

Antenna Placement and Fixing.

Antenna Type

A female SMA connector is provided to allow connection of a passive antenna.
The Antenna / Aerial used should conform to the following characteristics;

- GSM 850/900/1800/1900MHz.
- The impedance of any antenna or cable assembly used to connect to the module should be 50 ohms.
- The aerial should be able to cope with a minimum of 2W output power.
- The VSWR should be less than 3:1 to avoid damage to the device.

Antenna Placement

When the M60 is in use the Antenna \ Aerial should be placed in a position so it is not close to other electronics devices or other antennas.
We would recommend a minimum distance of 50CM between adjacent antennas operating on similar bands in order to get maximum performance and reduce interference.

Antenna Connection Cable

If you are going to use a cable to extend or repair the provided antenna then this cable must be a high quality low loss cable. Both the cable and any connectors used during the extension or repair should have 50 ohms impedance.

How to Insert \ Change your SIM card.

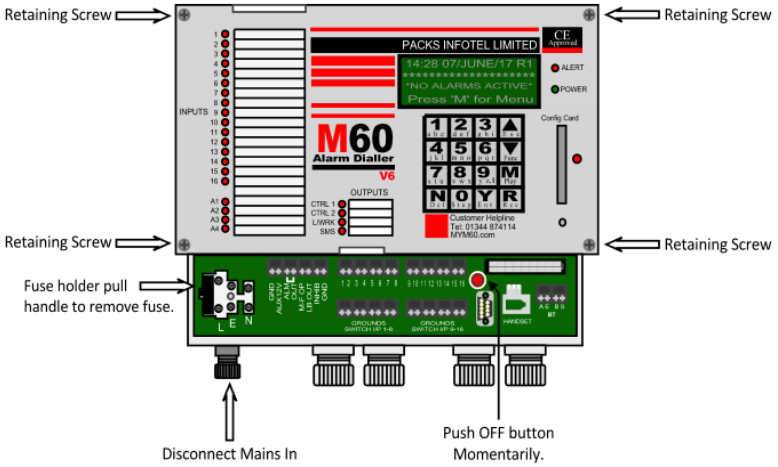


Diagram showing how to power down the M60 and remove the membrane

SIM card Direction

Before starting make sure any pin code has been removed, the SIM card has been tested to check its working and you can get reception in the proposed installation/testing location.
You should also ground yourself to remove any possible static from your body.

You will require.

- 1 Mobile phone SIM card.
- 1 Small flat terminal screw driver.
- 1 Medium Cross/Phillips Screw Driver.
- Anti static bracelet – this is recommended but not essential.

How to remove power from the M60.

1. Turn off any incoming mains 240VAC supply.
2. Remove the “termination plate” where the key switch is located.
3. If mains is connected (and the LCD is still displaying information) -
    a. Remove the black Fuse Holder in the grey mains terminal located on the left hand side.
    b. Press the push button marked “OFF” – located on the right hand side next to the vertical line card.
    c. The M60 will now turn off.

Remove the M60 Membrane.

The LCD display should now be blank.

1. Undo the four retaining screws located in each corner of the main M60 CPU Membrane Panel (Where the LCD display is).
2. Carefully remove the membrane from the case, while making sure not to let it drop as there is a 50 way ribbon cable connecting the CPU to the bottom Power Supply board.
    a. Inside the main case at the top left you will see the M60’s white battery – follow the batteries lead and you will see a 3 way plug in terminal. Carefully pull this off.
    b. Either unclip the ribbon cable from one of the boards by using the levers on each side of the socket, or carefully let the CPU hang down.

Locate the SMS Module.

Look at the rear of the M60 CPU Membrane panel that you have just removed in the bottom right hand corner you will see a small piggyback board with a black tube antenna and a silver rectangle – this is the SMS module (as depicted on the right).

How to insert your Mobile SIM Card.

1. Locate the SMS module.
    a. Just by the black antenna you will see a silver rectangle, this is the SIM card holder. On the side of this you will see a small slit – this is the SIM card holder slot.
    b. Carefully insert the SIM with the gold contact facing down and the cut-out in the top left hand corner.
2. When the SIM is inserted correctly you will hear a small click and the card will remain hidden from view.
    a. If the SIM keeps popping out check you are inserting it in the correct direction.

If you wish to remove the SIM card, just give the SIM a push and you will hear a click, the SIM will now pop out.

Reconnect Power and Perform a Basic Test.

Once you have inserted your new SIM and it is hidden from view you will need to reconnect power and do a basic test.

1. Reconnect the ribbon cable if you removed one end during the initial dismantle.
2. Reconnect the batteries 3 way terminal block – make sure the red wire is on the right hand side.
3. Reinsert the black fuse holder and reapply your mains connection.
4. You will hear a beep and all the lights will turn on briefly as the M60 performs its start-up routine.
5. Look at the side of the SMS module;
    a. You will see a small red LED flashing.
    b. When the M60 is initially powered up this will flash very quickly.
    c. After about 30 seconds when the module has found and registered itself on your local mobile \ cell network, the LED will flash every 3 seconds.
    d. If your module continues to flash quickly it means that either there is an issue with your SIM or you do not have sufficient mobile\cell phone reception where the M60 is currently located.

        Items to Check;

        - Make sure the SIM is activated and does not have a PIN code turned on.
        - Move the GSM aerial and or the M60 to another location.

Reassemble your M60.

Once you are happy the SIM card is inserted and has found a network you just need to put the M60 back together.

Reassemble the M60 by inserting the 4 screws into the membrane and reattaching the termination plate.

You should always do a full check on the M60 after replacing the SIM

Exposure to RF Energy

There has been some public concern about possible health effects of using GSM equipment in close proximity to a person or body. Although research on health effects from RF energy has focused for many years on the current RG technology, research has begun on new radio technologies, such as GSM and UMTS. After existing research had been reviewed, and after compliance to all applicable safety standards has been tested, it has been concluded that the our GSM modules are fit for use. If you are concerned about exposure to RF energy, there are a number of things you can do to minimize exposure. Obviously, limiting the duration of time near a device will reduce your exposure to RF energy. In addition, you can reduce RF exposure by adhering to the following guidelines:

Electronic devices
Most electronic equipment, for example in hospitals and motor vehicles is shielded from RF energy. However, RF energy may cause some malfunctioning on improperly shielded electronic equipment.

Vehicle electronic equipment
Check your vehicle manufacturer to determine if any on board electronic equipment is not adequately shielded from external RF energy.

Medical electronic equipment
Consult the manufacturer of any personal medical devices (such as pacemakers, hearing aids, etc.) to determine if they are adequately shielded from external RF energy.
Do not use the GSM\SMS modules in health care facilities whose regulations stipulate not to use RF energy products.

Aircraft
Turn the M60 off before boarding any aircraft. To prevent possible interference with aircraft systems, Federal Aviation Administration (FAA) regulations require you to have permission from a crewmember to use your GSM equipped equipment whilst the plane is on the ground. To prevent interference with cellular systems, local RF regulations prohibit using the module whilst in the air.

Blasting areas
To avoid interfering with blasting operations, turn the M60 OFF when in a “blasting area” or in areas posted: “turn off two-way radio“. Construction crew often uses remote control RF devices to set off explosives.

Potentially explosive atmospheres
Turn the M60 off when in any area with a potentially explosive atmosphere. It is rare, but the GSM\SMS module or their accessories could generate sparks. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include fuelling areas such as petrol stations, below deck on boats, fuel or chemical transfer or storage facilities and areas where the air contains chemicals or particles, such as grain, dust or metal powders. Do not transport or store flammable gas, liquid or explosives, in the compartment of your vehicle, which contains your terminal or accessories. Before using your terminal in a vehicle powered by liquefied petroleum gas (such as propane or butane) ensure that the vehicle complies with the relevant fire and safety regulations of the country in which the vehicle is to be used.

Safety Recommendations

PLEASE READ CAREFULLY

Be sure the use of this product is allowed in the country intended and the environment required. The use of this product may be dangerous and has to be used with caution in the following areas:

- Where it can interfere with other electronic devices in environments such as hospitals, airports, aircrafts, etc
- Where there is risk of explosion such as gasoline stations, oil refineries, gas works etc it is responsibility of the user to enforce the country regulation and the specific environment regulation.
- Do not disassemble the product; any mark of tampering will compromise the warranty.

The M60 has to be handled with care, avoid any direct contact with the pins because electrostatic discharge may damage the product.
The same precautions have to be observed for the SIM card installation.

The antenna should be installed with care in order to avoid any interference with other electronic devices and has to guarantee a minimum distance from the body of 20 cm.